

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Darcell Walker on 3/12/2009.

The application has been amended as follows:

Claim 18:

A method external from a native operating system of a computer system for generating a file identifier for use in controlling access to file system resources in a computer system comprising the steps of:

generating a data structure having a pointer to an index related to a physical location of a file resource in the file system and a pointer to a directory containing a requested file resource, wherein the file resource and the directory are on a memory device;

obtaining a unique physical attribute of the file system object, by retrieving a serial number for a file location where a requested file system resource resides the file system location is retrieved from an inode or vnode index or from a serial number generated using a programming interface;

obtaining the name of the file system object, by opening the directory identified in the data structure, for each entry in the directory, reading the serial number for the file

location, comparing said vnode or inode number to said serial number for the file location number and retrieving the file name of the resource out of the directory; and

constructing a file identifier for that file system object from said obtained unique physical attribute and said file system object name, by coupling the unique physical attribute to the file system object name to produce the file identifier for a particular file system object.

Claim 23:

The method as described in claim [22] 18 wherein said file identifier construction step comprises placing the index number at the beginning of the [of] bytes that will be the file identifier and appending the file name to the file of bytes.

Claim 24:

The method as described in claim [22] 18 further comprising after said comparing step, the steps of: retrieving the next entry in the directory when the said comparison is not equal; determining if this entry is the last entry; and proceeding to read said entry is not the last entry.

Claim 33:

A method external from a native operating system of a computer system for generating a file identifier for use in controlling access to file system resources in the computer system, the external file generating method comprising the steps:

- obtaining an underlying object data pointer for a file system object;
- obtaining an object pointer of for the parent directory of the file system object;

obtaining a physical file location number for the system object using the obtained underlying object data pointer for the system file object and the obtained object pointer of for the parent directory of the file system object, wherein the system object and the parent directory are on a memory device;

obtaining the file name for the system file object by using the data pointer for the parent directory by using the data pointer for the parent directory to open the directory;

obtaining a specific file serial number for the system file object using the physical file;

reading information contained in the directory to get a directory entry's serial number or node index;

determining whether there is a match between a serial number of an entry in the parent directory and the obtained serial number of the specific file system object;

when the determination is that the serial number of a directory entry is equal to the serial number of the specific file system object, retrieving the name of the entry in the directory and the length of that name;

constructing a file identifier for a file system resource of the file system object by placing the file serial number at the beginning of the file of bytes;

appending the length of the file name and file name to the constructed file identifier resulting in memory locations containing the serial number, the length of the file name and the file name in consecutive memory locations;

setting a file identifier length for the constructed file identifier to be equal to the length of the file name plus the number of bytes required for the serial number plus the number of bytes required to write the length of the file name; and
returning the newly constructed file identifier to the user.

Relevant Art Cited By Examiner

The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See MPEP 707.05(c).

The following references teach computer file systems, file management, secure access to files:

US Patent Number

Duvall et al. (4,761,737)

Sakurai (5,093,779)

Farber et al. (6,415,280)

Burkes et al. (6,023,715)

Gore, Jr. (5,771,379)

Karp et al. (7,107,591)

Alvarez et al. (3,723,976)

Gomola et al. (4,215,407)

Zarmer et al. (5,625,818)

Winterbottom (5,724,512)

Allowable Subject Matter.

Claims 18, 23-25 and 33 are allowed.

The following is an examiner's statement of reasons for allowance: Examiner is unable to find prior art or any obvious combination thereof that discloses generating a data structure having a pointer to an index related to a physical location and a pointer to a directory, obtaining a unique physical attribute of the file system object, obtaining the name of the file system object, and constructing a file identifier for that file system object from said obtained unique physical attribute and said file system object name.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES TURCHEN whose telephone number is (571)270-1378. The examiner can normally be reached on MTWRF 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571)272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRT

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2434